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Paradoxal Effect of Antiviral Carbocyclic Substances in Subtoxic Concentrations. E.I.Boreko, N.I.Pavlova, S.N.Nikolaeva, V.I.Votjakov. Byelorussian Research Institute for Epidemiology & Microbiology, Minsk, Republic of Byelarus

We found out that a number of known and new adamantane (including rimantadine HCl and tromantadine HCl), bicyclo[2.2.1]heptane, cyclohexane derivatives inhibit influenza, respiratory-syncytial, herpes simplex viruses reproduction in low nontoxic concentrations and make it possible in subtoxic doses limits. Fowl plague virus, which replicated in presence of subtoxic rimantadine concentrations, differs from the initial virus by decreased verografin, sucrose and cesium chloride gradients floe density, low number of glycoproteins spikes on virions surface. It is characterized by decreased amount of the M-protein, hemagglutinin and incomplete cleavage of the latter. Increased termolability of hemagglutinin and temperature-sensitivity of this virus are observed.

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Antiviral Factor of Noninterferon and Noninterleukin Origin. N.V.Gribkova, V.I.Votjakov. Byelorussian Institute for Epidemiology & Microbiology, Minsk, Republic of Byelarus

The antiviral factor was isolated from infected chicken embryo fibroblasts by means of acidolysis. This virus inhibitor reduced replication of influenza, venezuelian equine encephalomyelitis, vesicular stomatitis, herpes simplex and vaccinia viruses in vitro. Antiviral effect was not accompanied by production of interferon and interleukines. Addition of actinomycin D and cycloheximide to the culture medium prevented the production of antiviral factor. These results permit us to suppose, that cells mRNAs and proteins are necessary for antiviral factor production. Antiviral factor stimulated synthesis of RNAs and proteins of chicken embryo fibroblasts insignificantly and increased mitotic activity of Vero cells 3 times. Besides that, the antiviral factor had folloving characteristics: lack of species specificity, stability at 100^{o}C for 30 min and mol. weight about 5 kD.